

Guist Creek Lake Bass Assessment 2008

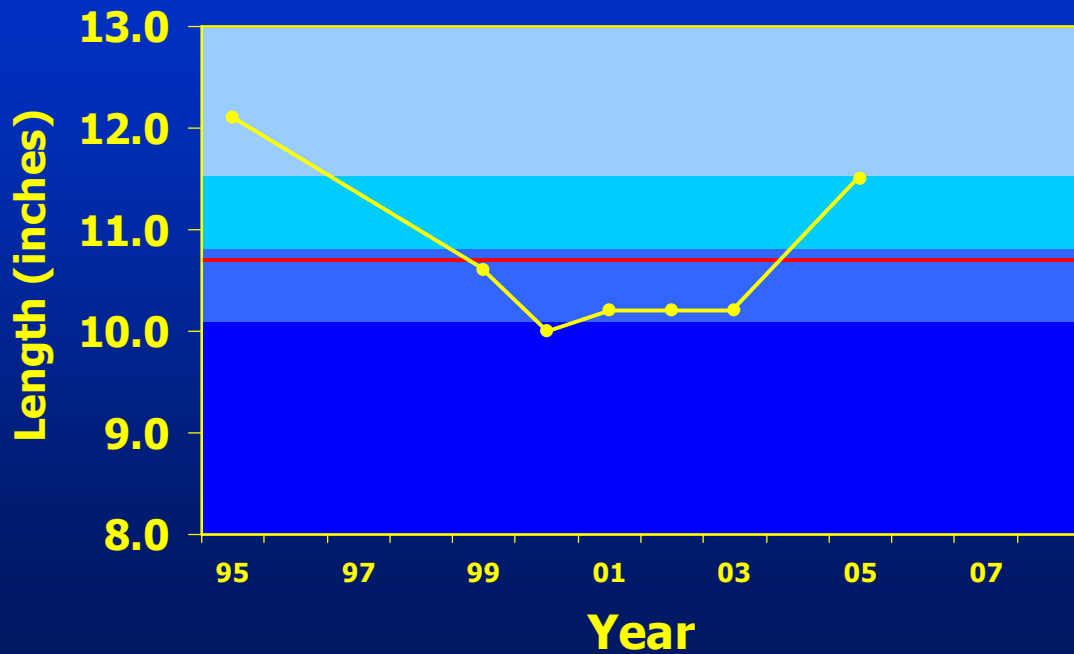
Guist Creek Lake is a 317-acre reservoir owned by the Kentucky Department of Fish and Wildlife Resources and was impounded in the early 1960's. The lake has a very popular bass fishery due to its close proximity to Louisville. Past creel surveys have shown heavy fishing pressure for largemouth bass at Guist Creek Lake. The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment. Please see "The Largemouth Bass Assessment" article for an explanation of how the assessment works.



Parameter 1 – Length at age-3 (growth rate)

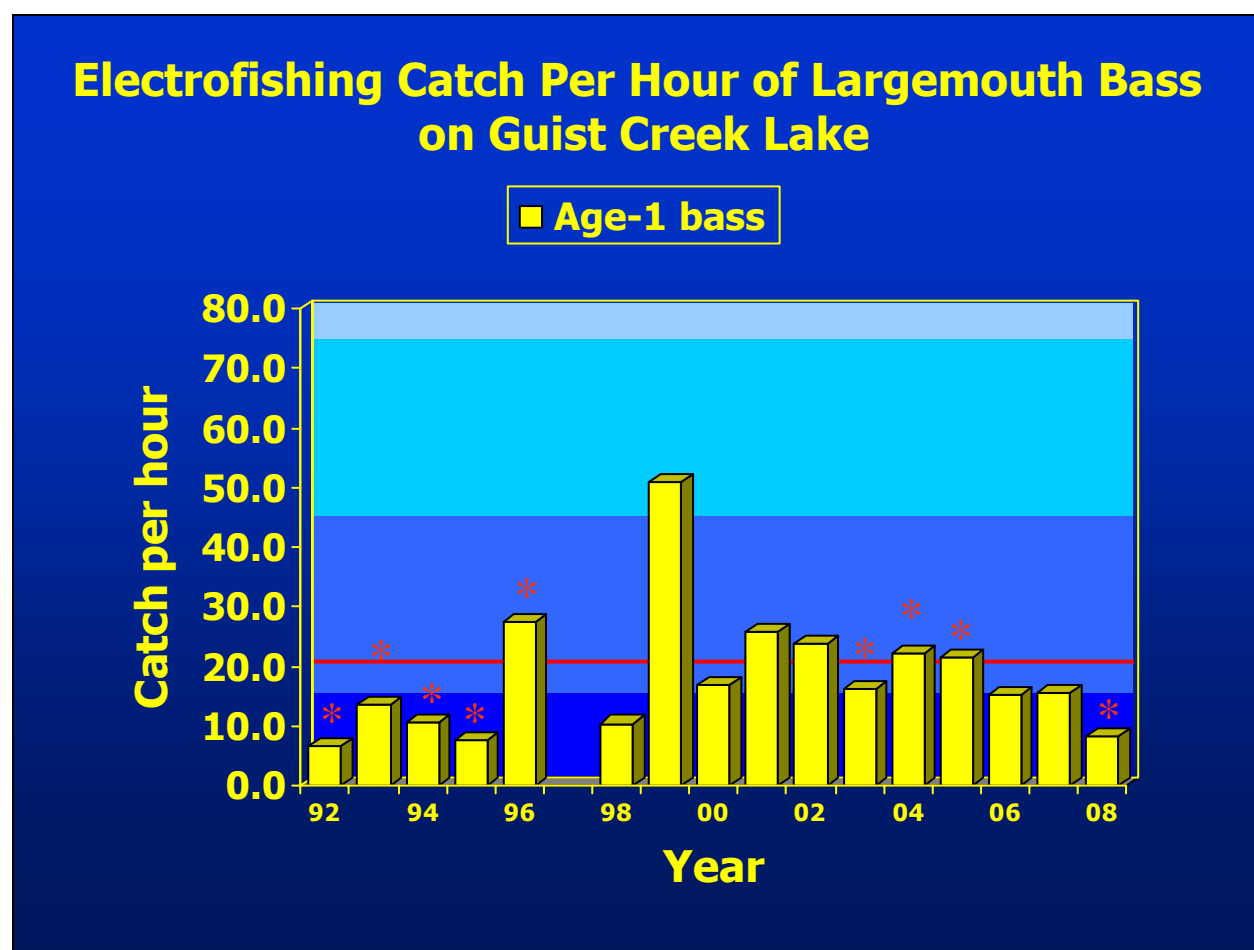
At Guist Creek Lake, the length of an age-3 largemouth bass has averaged less than 11.0 inches since 1995 and is represented by the red line. Compared to other reservoirs of a similar size, this is fair growth. Largemouth bass growth has fluctuated through the years as a result of changes in population dynamics, food resources, and weather patterns. The last year that KDFWR aged largemouth bass at the lake was 2005. Growth during 2005 was ranked as good. KDFWR biologists are planning to re-evaluate the growth rates of largemouth bass at Guist Creek Lake during their 2009 spring sampling.

Mean Length of age-3 at capture of Largemouth Bass on Guist Creek Lake



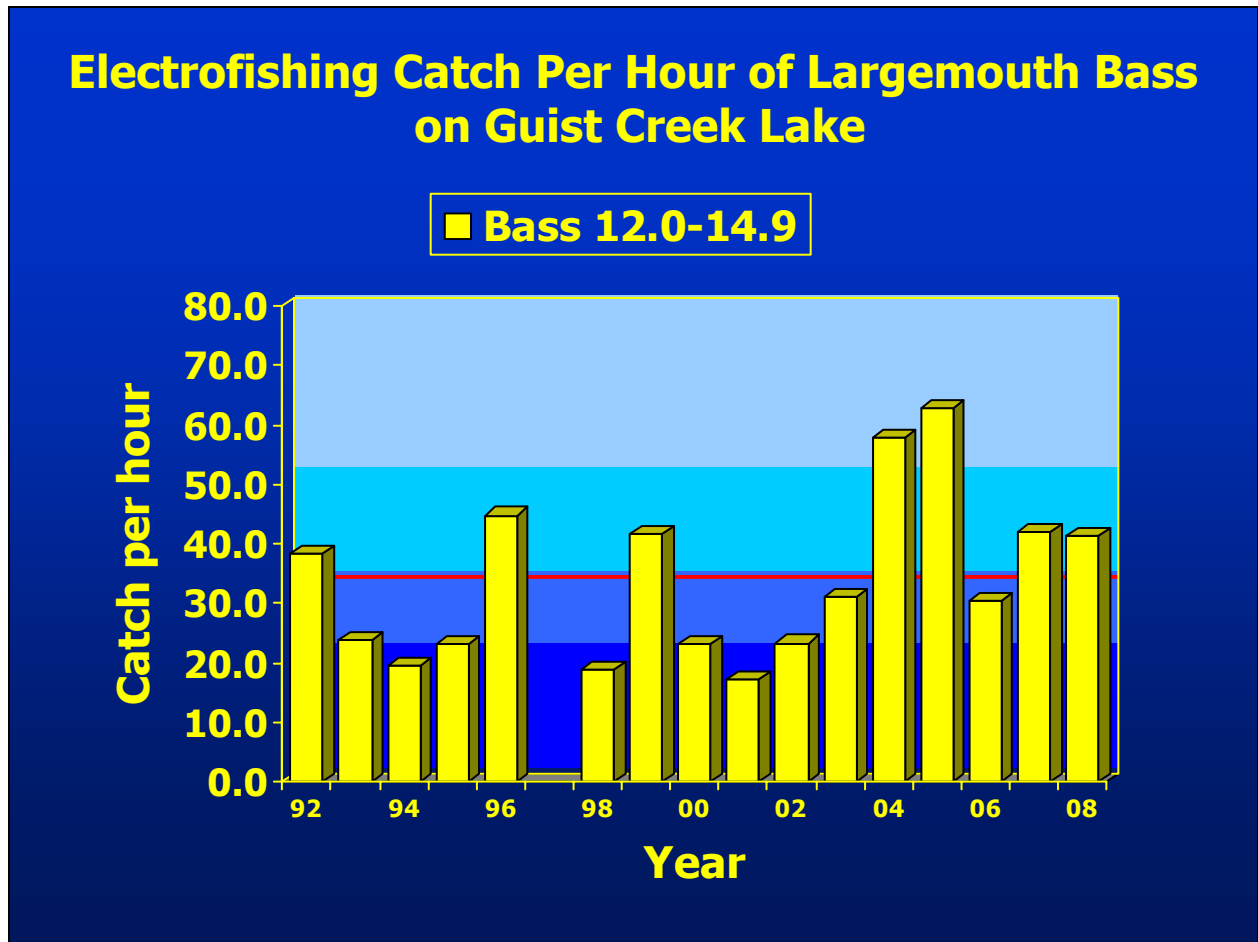
Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the catch rate of age-1 largemouth bass to assess the success of the spawn which occurred in the prior year. This is an important parameter because the number of age-1 bass produced represents how good the fishing will be once these fish grow large enough for anglers to catch. At Guist Creek Lake, age-1 largemouth bass catch rates have averaged around 20.0 bass/hour of electrofishing since 1992 as indicated by the red line. This is fair when compared to other lakes of a similar size. Spawning has been fairly stable since the turn of the century but the department has stocked largemouth bass to buffer some poor year classes. The red asterisks represent years when KDFWR stocked (4.0-5.0 inch) largemouth bass. Reproduction has been below average over the past three years. As a result, bass fishing in upcoming years may be a little tougher.



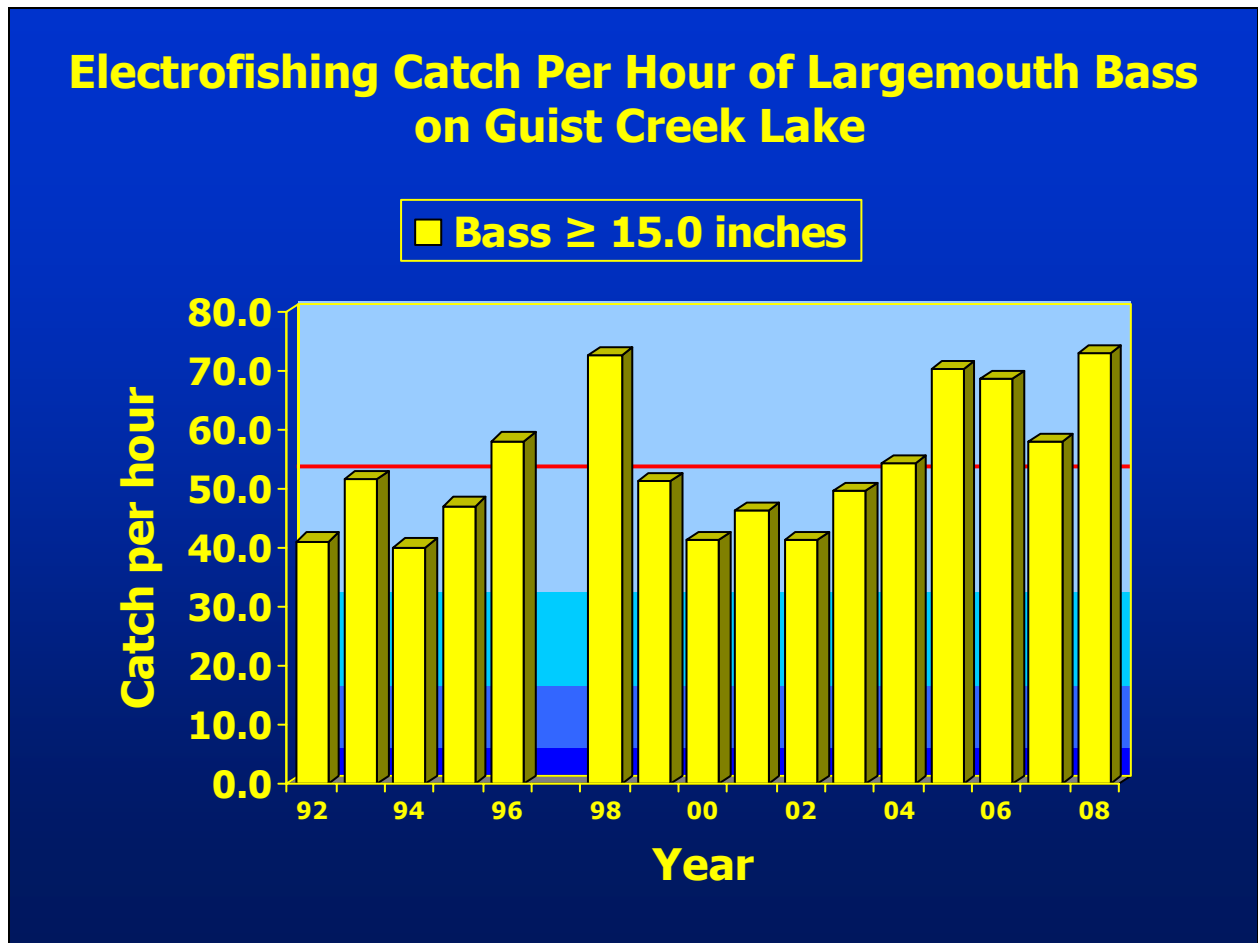
Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0-14.9 inch largemouth bass has averaged over 30.0 fish/hour, as indicated by the red line. As compared to other lakes, this is a fair catch rate for this size group of bass. Four out of the last five years, KDFWR biologists have recorded above average catch rates of this size group at Guist Creek Lake. However, the catch rate of 12.0-14.9 inch largemouth bass is expected to decrease over the next couple of years due to recent poor spawns.



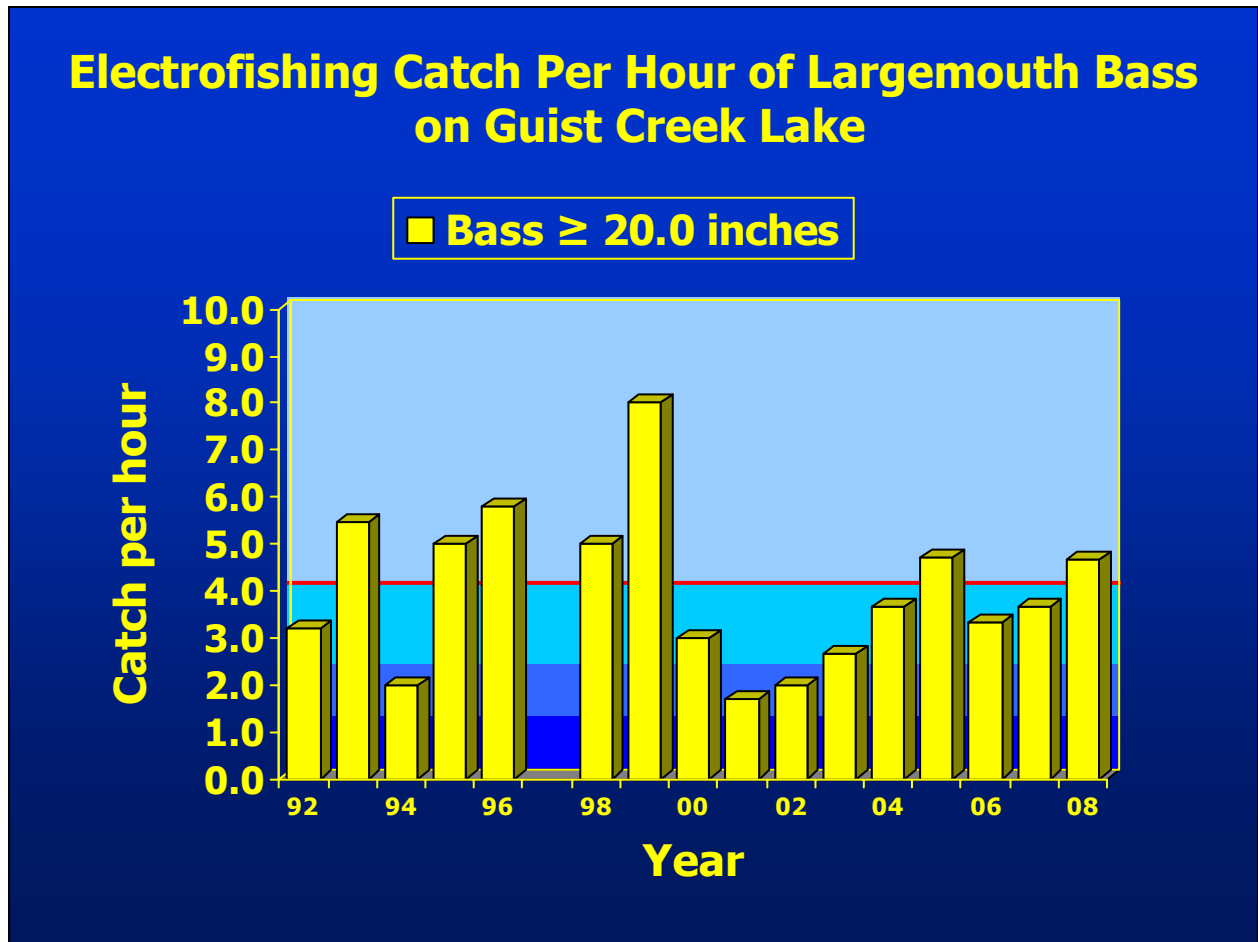
Parameter 4 – Numbers of 15.0 inch and larger bass

Electrofishing catch of 15.0 inch and larger largemouth bass has averaged over 50.0 fish/hour as indicated by the red line. When compared to other lakes, this is an excellent catch rate for this size group of bass. The catch rate for this size group is expected to remain in the excellent category over the next couple of years. This is primarily due to the large number of anglers that practice catch and release on the lake.



Parameter 5 – Numbers of 20.0 inch and larger bass

The electrofishing catch of 20.0 inch and larger largemouth bass has averaged about 4.0 fish/hour since 1992 as indicated by the red line. As compared to other lakes, this is an excellent catch rate for this size group. The catch rate of 20.0 inch and larger bass declined after the turn of the century, but numbers have made a gradual improvement over the past several years. Numbers of 20.0 inch and larger largemouth bass are expected to remain the same or gradually improve over the next few years.



Overall – Total Assessment Score (All five parameters added together)

Overall, the largemouth bass fishery at Guist Creek Lake has averaged a good rating since 1992 as indicated by the red line. The largemouth bass population at Guist Creek Lake has been fairly stable and earned an excellent rating in 2008. The future of the largemouth bass fishery at Guist Creek Lake looks very promising based on this assessment.

